

### **Abstract**

The present invention is directed at using digital inputs in addition to an external resistor to set the trip point for a thermostat. The digital inputs are used to select a voltage (temperature) range. The value of the external resistor is used to select the  
5 specific trip point within the selected range. Since the voltage drop across the resistor is smaller than prior art methods, the tolerance of the resistor is also smaller in terms of voltage or temperature. This results in the trip point for the chip having a tighter tolerance. According to different embodiments, the digital inputs may be actively controlled or hardwired.

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